

Verruciform Xanthoma: A Case Report

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ABSTRACT

Introduction: Shafer first described the entity Verruciform Xanthoma (VX) in the year 1971 as an uncommon lesion of the mucosa of the oral cavity with unknown etiopathology. It is a papillary, polypoid or sessile growth which is usually non-symptomatic in nature. There is no gender predilection. It is reddish in color but sometimes may appear pale or hyperkeratotic with a cauliflower like growth. The size of the lesion ranges from 2mm to 2cm or more. The hallmark and distinguishing feature of VX is the presence of lipid-laden foamy histiocytes usually present in the papillary region of the connective tissue.

Case Report: Here we present a case of a 63-year-old male patient with a chief complaint of a whitish growth on the lower anterior gingiva which was firm in consistency measuring about 2 x 1 cm. A biopsy was taken and it was sent for histopathological diagnosis of the same.

Conclusion: Verruciform xanthoma is a rare benign proliferative lesion of the oral cavity, characterized by the presence of foam cells within the connective tissue papillae. It is important to make the correct diagnosis for verruciform xanthoma by histopathology because of its resemblance to papilloma and other verrucous lesions.

Key Words: Verruciform Xanthoma (VX), Xanthoma Cells, Papilloma, Histopathological Diagnosis, Lower Anterior Gingiva, Papillary Region

INTRODUCTION

Verruciform Xanthoma (VX) is a benign mucocutaneous lesion of the oral cavity which is uncertain in nature and has an unknown etiology.¹ It is an uncommon lesion with an incidence rate of 0.025-0.05% of all the pathology cases. Clinically, the lesion appears as a papillary or cauliflower-like growth which may lead to a misdiagnosis of papilloma.² It occurs as a small (0.2–2 cm), solitary, asymptomatic, slow-growing, white or yellowish red lesion with no sex predominance.³ Microscopically, the characteristic feature is epithelial cell proliferation and the accumulation of xanthoma cells or foam cells in the upper lamina propria.⁴ Other cell types, including Langerhans cells, intraepithelial neutrophilic infiltrate and even fibroblasts, have been reported. Almost every case is diagnosed on histological examination as the clinical appearance is not diagnostic. Differentiation from other lesions with foamy or granular cells is not difficult as verruciform xanthoma is the only lesion to have these cells confined

to the papillae.⁵ Differential diagnosis includes Erythroplasia of Queyrat (Bowen disease of the glans penis), seborrheic keratosis, verrucous carcinoma, verruca simplex etc.⁶ The choice of treatment is local surgical excision which is almost always curative and recurrence is rare.³

CASE REPORT

A 63-year-old male patient visited the dental hospital with the chief complaint of an asymptomatic whitish growth on the lower anterior gingiva. [Figure 1]

The patient gave a medical history of hypertension and was on medication for the same. The patient gave no history of any habits. On clinical examination, a firm whitish exophytic papillomatous growth was seen on the anterior gingiva measuring about 2 x 1cm. The lesion was firm in consistency. After clinical examination, an incisional biopsy was taken and sent for histopathological examination.

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Figure 1: clinical picture of a 63-year-old male patient with whitish growth.

On gross examination, a single bit of soft tissue was observed measuring about 0.5x0.2x0.1 cm, rectangular in shape, white in color and firm in consistency. The surface of the lesion was verrucous. [Figure 2]



Figure 2: grossing image of the tissue measuring about 0.5x0.2x0.1cms

On histopathological examination, H and E stained section shows parakeratinized stratified squamous epithelium and underlying connective tissue stroma. The epithelium shows elongated and uniform rete ridges. The connective tissue stroma is fibro-cellular and shows presence of large xanthoma cells with foamy and granular cytoplasm. Moderate inflammatory cell infiltrate and blood vessels can also be seen. [Figure 3: A and B]

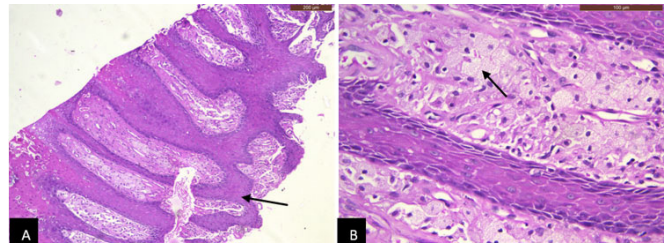


Figure 3: (A) H and E-stained section showing elongated and uniform rete ridges. (B) H and E stained section showing presence of large xanthoma cells with foamy and granular cytoplasm.

DISCUSSION

VX is a rare lesion, accounting for 0.025–0.095% of all cases with an unknown etiopathology. It can be because of the damage to the squamous cells due to trauma, irritation or infection, which can cause increased epithelial turnover leading to the disease. The epithelial breakdown leads to an inflammatory response and a subsequent release of lipid material from the degenerated cells.³

It is sessile or pedunculated and can resemble leukoplakia or squamous papilloma. It occurs most commonly in the 4th–6th decade of life with equal distribution between both sexes. However, it has been reported that there is a slight male predilection.⁵ In the present case, the lesion resembles a leukoplakic patch and occurred in the 6th decade.

The most common location for VX reported is masticatory mucosa, with gingival margin. Next in order of frequency were hard palate; tongue; buccal mucosa/vestibular fold; floor of the mouth and attached gingiva/alveolar mucosa; soft palate; lower lip; junction between hard and soft palate.⁴ In the above case, the lesion was present on the anterior mandibular gingiva.

Histologically, VX shows three patterns: verrucous (most common), flat, and papillary (least common). There is parakeratosis of the hyperplastic epithelium which is variable in extent and is usually more marked in the verrucous and papillary patterns. The rete pegs are elongated, uniform, and thin, with deep central keratinized clefts and keratin plugs. However, no evidence of dysplasia. The characteristic histological featured presence of xanthoma cells in the connective tissue.³ In the present case, the lesion showed a verrucous pattern with elongated rete ridges. The connective tissue consisted of peculiar xanthoma cells with pale and granular cytoplasm.

The treatment of choice is complete surgical excision which is very effective with no recurrence. Histopathological examination of the biopsies should be performed to distinguish VX from other verrucous lesions.⁷

CONCLUSION

Verruciform xanthoma is a rare benign proliferative lesion of the oral cavity, characterized by the presence of foam cells within the connective tissue papillae. Foam cells are macrophages with lipid content, thought to be derived from the keratinocytes. It is important to make the correct diagnosis for verruciform xanthoma by histopathology because of its resemblance to papilloma and other verrucous lesions.

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REFERENCES

1. Akshay S, Kourosh N, Yogesh L, Maryam M, Iman M. "Oral Verruciform Xanthoma: A Case Report and Literature Review." *Case Reports in Dentistry*. 2013 Jan (6); 528967: <https://doi.org/10.1155/2013/528967>
2. Hegde U, Doddawad VG, Sreeshyla H, Patil R. Verruciform xanthoma: A view on the concepts of its etiopathogenesis. *J Oral Maxillofac Pathol*. 2013;17(3):392–6.
3. Rajendran R. *Shafer's Textbook of Oral Pathology* (6Th Edition). Elsevier India; 2009.
4. Sah K, Kale A, Hallikerimath S. Verruciform xanthoma: Report of two cases and review on pathogenesis. *J. Oral Maxillofac. Pathol*. 2008;12(1):41. Available from: <http://dx.doi.org/10.4103/0973-029x.42198>
5. Mohsin SK, Lee MW, Amin MB, Stoler MH, Eyzaguirre E, Ma CK, et al. Cutaneous Verruciform Xanthoma. *Am J Surg Pathol*. 1998;22(4):479–87. Available from: <http://dx.doi.org/10.1097/00000478-199804000-00014>
6. Reich O, Regauer S. Recurrent Verruciform Xanthoma of the Vulva. *Int J Gynecol Pathol*. 2004;23(1):75–7. Available from: <http://dx.doi.org/10.1097/01.pgp.0000101143.79462.f7>
7. Connolly SB, Lewis EJ, Lindholm JS, Zelickson BD, Zachary CB, Tope WD. Management of cutaneous verruciform xanthoma. *J Am Acad Dermatol*. 2000;42(2 Pt 2):343–7.